

What we Claim is:

1. Mixed-media data encoding apparatus, in which said mixed-media data includes a plurality of data types, comprising

5 encoding means configured to encode said mixed-media data to prevent unauthorised access and;

10 storage means configured to store said encoded data, wherein user access to said data is possible in response to an accessing activity performed by a user and a first set of user modifications may be made to said data (a first level of access) in response to a first accessing activity and a second set of user modifications may be made to said data (a 15 second level of access) in response to a second accessing activity.

2. Apparatus according to claim 1, wherein said storage means is a local hard drive, a removable disk, a CD ROM or a DVD.

3. Apparatus according to claim 1, including data distribution means for distributing said encoded data over a distribution channel.

20 4. Apparatus according to claim 3, wherein said distribution channel is a television broadcast channel or the internet.

5. Encoded mixed-media data decoding apparatus, in which said data includes a plurality of data types, comprising

25 receiving means arranged to receive an encoded media data file; and

activity responsive means configured to respond to an accessing activity, wherein a first accessing activity provides a first level of access and a second accessing activity provides a second level of access.

5 6. Apparatus according to claim 5, wherein said receiving means includes a disk reader, a CD ROM reader, a DVD reader, an internet connection or a television receiver.

10 7. Apparatus according to claim 5, wherein said receiving means includes decryption means configured to decrypt an encrypted portion of the media data (including said data types) with the assistance of data read from a non-encrypted portion to produce decrypted data.

15 8. Apparatus according to claim 5, wherein said activity responsive means is configured to read an access defining portion of said decrypted data to determine the nature of said accessing activities.

20 9. Apparatus according to claim 8, wherein said access defining portion of said decrypted data defines a plurality of passwords and said activity responsive means is responsive to said passwords being identified so as to provide a particular level of access to said data.

25 10. Apparatus according to claim 9, wherein said activity responsive means is responsive to passwords being entered manually by a user.

11. A method of encoding mixed-media data, in which said data includes a plurality of media data types, comprising the steps of

5 encoding said media data to prevent unauthorised access, wherein user access to said media data is possible in response to an accessing activity performed by a user; and

10 access to said media data is responsive to a plurality of accessing activities in which a first accessing activity provides a first level of access and a second accessing activity provides a second level of access.

15 12. A method according to claim 11, wherein said media data types include motion data, model data, deformation parameters, constraints, expressions or relations, textures, colour values, cameras, lights, video, audio, device information, a timeline or user data or any combination of these data types.

20 13. A method according to claim 11, wherein said encoding step includes adding access passwords to produce an internal file with passwords.

25 14. A method according to claim 13, wherein said encoding step includes encrypting said internal file to produce an encrypted internal file.

15. A method according to claim 14, wherein said encoding step includes adding an encryption key or a portion of said encryption key to a header to produce an encoded export file.

16. A method according to claim 15, wherein said encoding step adds random data to selected positions of said header.

5 17. A method of decoding encoded media data, in which said media data includes a plurality of image related and/or audio related data types, comprising the steps of

receiving and encoded media data file; and

10 performing an activity in order to gain access to one or more of said data types, wherein a first accessing activity provides a first level of access and a second accessing activity provides a second level of access.

15 18. A method according to claim 17, wherein said activity comprises identifying a password.

19. A method according to claim 17, wherein said first level of access provides for the rendering and playback of three-dimensional data so as to produce two-dimensional output.

20 20. A method according to claim 17, wherein said second level of access allows behaviour triggering to be modified.

21. A method according to claim 17, wherein a third accessing activity provides a third level of access that allows scene control.

22. A method according to claim 17, wherein a fourth accessing activity provides a fourth level of access that allows clip libraries to be modified.

5 23. A method according to claim 17, wherein a fifth accessing activity provides a fifth level of access that allows animation to be edited.

10 24. A method according to claim 17, wherein a sixth accessing activity provides a sixth level of access that allows model editing and texture editing to be performed.

15 25. A method according to claim 17, wherein a seventh accessing activity provides a seventh level of access that allows full control to the data.

20 26. A computer-readable medium having computer-readable instructions executable by a computer such that, when executing said instructions, a computer will perform the steps of:

encoding said media data to prevent unauthorised access, wherein user access to said media data is possible in response to an accessing activity performed by a user; and

access to said media data is responsive to a plurality of accessing activities in which a first accessing activity provides a first level of access and a second accessing activity provides a second level of access.

27. A computer-readable medium having computer-readable instructions executable by a computer such that, when executing said instructions a computer will perform a method in accordance with any of claims 12 to 16.

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28. A computer-readable medium having computer-readable instructions executable by a computer such that, when executing said instructions, a computer will perform the steps of:

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receiving an encoded media data file; and
performing an activity in order to gain access to one or more of said data types, wherein a first accessing activity provides a first level of access and a second accessing activity provides a second level of access.

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29. A computer-readable medium having computer-readable instructions executable by a computer such that, when executing said instructions a computer will perform a method in accordance with any of claims 18 to 25.

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30. A media data format for communicating media data from a source station to a destination station in an encoded form, in which said media data includes a plurality of image related and/or audio related data types, wherein:

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media data is encoded at a transmitting station;

said encoded data is transmitted to a receiving station; and

said transmitted data is decoded at a receiving station, wherein

5 said transmitted encoded data includes data fields configured to allow levels of access to a user in response to particular user access activities.

10 31. A media data format according to claim 30, wherein said media data types include motion capture data, model data, deformation parameters, constraints, expressions or relations, textures, colour values, cameras, lights, video, audio, device information or a timeline or any combination of these data types.

15 32. A media data format according to claim 30, wherein said encoded data includes a header containing an encryption key or a portion of said encryption key.

20 33. A media data format according to claim 32, wherein said header includes random data at selected positions in said header.

34. A media data format according to claim 32, wherein said encoded data includes an encrypted portion encrypted by said encryption key.

25 35. A media data format according to claim 34, wherein said encrypted portion includes mixed-media data types and access passwords.

36. A computer readable medium having a first data field for mixed-media data and a second data field for access data, wherein

5 said mixed-media data includes a plurality of data types; and
said access data is used to determine the validity of an accessing
activity, wherein a first accessing activity provides a first level of access to
said mixed-media data and a second accessing activity provides a second
level of access to said mixed-media data.

37. A computer readable medium according to claim 36, wherein said first level of access provides for the rendering and playback of three-dimensional data so as to produce two-dimensional output.

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38. A computer readable medium to claim 36, wherein said second level of access allows behaviour triggering to be modified.

39. A computer readable medium according to claim 36, wherein a third accessing activity provides a third level of access that allows scene control.

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40. A computer readable medium according to claim 36, wherein a fourth accessing activity provides a fourth level of access that allows clip libraries to be modified.

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41. A computer readable medium according to claim 36, wherein a fifth accessing activity provides a fifth level of access that allows animation to be edited.

42. A computer readable medium according to claim 36, wherein a sixth accessing activity provides a sixth level of access that allows model editing and texture editing to be performed.

5 **43.** A computer readable medium according to claim 36, wherein a seventh accessing activity provides a seventh level of access that allows full control to the data.

10 **44.** A computer readable medium according to claim 36, wherein said first data field for media data and said second data field for accessing data are encrypted.

15 **45.** A computer readable medium according to claim 44, including a header having an encryption key or part of an encryption key embedded therein to facilitate the decryption of said encrypted data fields.